



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,008	03/02/2004	Milton F. Wright	100/I-2004	3556

7590 09/07/2006

Todd A. Vaughn, Esq.  
3150 Commonwealth Avenue  
Alexandria, VA 22305

EXAMINER

FELTON, MICHAEL J

ART UNIT PAPER NUMBER

1731

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/790,008

Applicant(s)

WRIGHT, MILTON F.

Examiner

Michael J. Felton

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3669126 to Soussa et al.. Soussa discloses a filter for removing toxic constituents from tobacco smoke using, non-fibrous (column 4, lines 13-25), inorganic, calcium hydroxide (hydrated lime) particles or granules (column 4, lines 13-25, and 33).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3669126 to Soussa in view of 2894820 to Rikard et al. and 2938818 to Specht. Although Soussa discloses a filter using calcium hydroxide (see 102(b) above), Soussa does not disclose the calcium hydroxide's surface area (applicant claim 4) and discloses a larger particle diameter (applicant claim 5). Specht discloses the use of hydrated lime to react with smoke in cigarettes that is less than 10 microns in diameter, and preferably between 0.5 and 2.0 microns (column 3, lines 58-67). Rikard discloses that conventional production of hydrate lime results in particle sizes from 0.5 to 5 microns in diameter, and has a surface area on the order of 13 to 18 sq. m./g.. Specht is analogous art because the hydrate lime is being used for the same function as the instant invention. Rikard discloses the result of a production method that is the same across many arts, including the art of Specht, Soussa, and the instant application. The motivation to combine these inventions is disclosed in Specht. Specht indicates that large particles of calcium hydroxide are more prone to pass during smoking than smaller particles. In addition it is common knowledge in science that increases in surface area increase reaction rates.

6. It would have been obvious to one of ordinary skill in the art at the time of invention that the calcium hydroxide of Soussa could be produced with the particle diameter disclosed in Specht, which would have the surface area disclosed in Rikard.

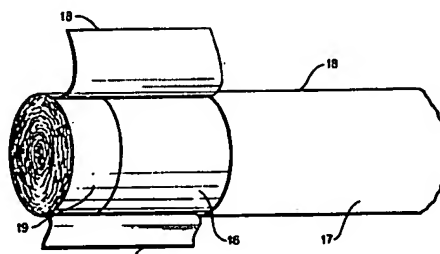
7. Claim 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3669126 to Soussa, 2894820 to Rikard et al., and 2938818 to Specht, in further view of US 6322769 to Langelin et al. Soussa discloses a filter using inorganic, non-fibrous, calcium hydroxide (see

Art Unit: 1731

102(b) above) and disclose the calcium hydroxide's particle diameter and surface area (see 103(a) above), but they are silent to the calcium hydroxide's pore volume. Langelin discloses a method of making calcium hydroxide with a pore volume (column 1, lines 11-16) for uses such as industrial gas absorption. Langelin is analogous art because the calcium hydroxide is being used for the same purpose, to absorb gasses.

8. It would be obvious to one of ordinary skill in the art to combine the calcium hydroxide filter disclosed by Soussa with the improvement in calcium hydroxide manufacture for absorption of gases by Langelin.

9. Claims 8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3669126 to Soussa in view of US 5161549 to Rosario. Although Soussa discloses a filter using hydrated lime (see 102(b) above) that could be held between other tobacco filters making a multi-sectioned cigarette filter (column 2, lines 39-44), Soussa is silent to what filter materials could be used and how the filters are attached to the cigarette. Rosario discloses a filter composed of fibrous material (Column 3, lines 64-68; col. 4, 1-12), and discloses how the filter, and an additional filter section (column 5, lines 62-68; col. 6, 1-3) is positioned and circumscribed by a single plug wrap (column 5, lines 23-34) as seen in Figure 3, element 18. Soussa and Rosario are analogous art, both pertaining to filters for tobacco cigarettes. The motivation to combine Soussa and Rosario comes from the suggestion in both patents that cigarette filters can be combined (Soussa, column 2, lines 39-44; and Rosario column 5, lines 23-34) and Rosario suggests one reason; to prolong the life of a filter (column 5, lines 59-66).



10. Therefore, it would have been obvious to one skilled in the art at the time of invention to combine the multi-section, hydrated lime-containing, cigarette filter disclosed in Soussa with the multi-section fibrous filter circumscribed by a single plug wrap disclosed in Rosario. In addition, it is widely known in the art that filters can be combined in various configurations to achieve the desired filtration.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Felton whose telephone number is 571-272-4805. The examiner can normally be reached on Monday to Friday, 7:30 AM to 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700